

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Original): A network router management interface comprising:
a client interface that receives, from a network router client, configuration requests and operational requests encoded with extensible markup language tags;
a storage device storing a network management interface schema that maps the extensible markup language tags to configuration and operational information associated with software modules running on a network router, the software modules including a chassis software module that defines an inventory of components in the network router chassis, a device configuration software module that defines a physical configuration of the network router, and a routing protocol module that administers protocols supported by the network router;
a management server software module that parses the configuration requests and the operational requests received at the client interface and accesses the corresponding configuration and operational information associated with the chassis software module, the device configuration software module, and the routing control software module according to the network management interface schema, and emits to the client interface replies encoded with extensible markup language tags according to the network management interface schema, wherein the management server module, in response to a selection made by a user, emits the replies for presentation in either a rendered or unrendered format.

Claim 2 (Original): The network router management interface of claim 1, wherein the tags include chassis tags that define output for the chassis software module, device configuration tags that define output for the device configuration software module, and routing protocol tags that define output for the routing protocol software module.

Claim 3 (Original): The network router management interface of claim 1, wherein the management server module receives at least some of the replies encoded with extensible markup language tags from one or more of the software modules.

Claim 4 (Original): The network router management interface of claim 1, wherein the management server module encodes at least some of the replies with extensible markup language tags based on non-encoded replies received from one or more of the software modules.

Claim 5 (Original): The network router management interface of claim 4, wherein the non-encoded replies include ASCII replies, the management server module encoding the ASCII replies in extensible markup language tags to form the encoded replies.

Claim 6 (Original): The network router management interface of claim 1, wherein the selection made by the user includes user input received at the client interface indicating a desire to present the replies in an unrendered form.

Claim 7 (Original): The network router management interface of claim 1, wherein the management server module emits the replies in a default mode unless the selection made by the user overrides the default mode.

Claim 8 (Original): The network router management interface of claim 7, wherein the management server module includes with the replies an indication that the replies are not to be rendered when the user overrides the default mode.

Claim 9 (Original): The network router management interface of claim 1, wherein the configuration requests include requests to change an existing configuration of the network router, the management server module interacting with one or more of the software modules to effect the requested change.

Claim 10 (Original): The network router management interface of claim 1, wherein the extensible markup language is XML, and the client interface presents an XML-based application programming interface (API).

Claim 11 (Original): The network router management interface of claim 1, wherein the network router includes a packet routing engine that specifies one or more routes for data packets, and a packet forwarding engine that forwards the data packets according to the specified routes, and the management server module is a process within an operating environment executing on the packet routing engine.

Claim 12 (Original): A method comprising:

receiving, at a client interface of a network router, configuration requests and operational requests encoded with extensible markup language tags;

accessing a network management interface schema that maps the extensible markup language tags to configuration and operational information associated with software modules running on a network router, the software modules including a chassis software module that defines an inventory of components in the network router chassis, a device configuration software module that defines a physical configuration of the network router, and a routing protocol module that administers protocols supported by the network router;

parsing the configuration requests and the operational requests;

accessing the corresponding configuration and operational information associated with the chassis software module, the device configuration software module, and the routing control software module according to the network management interface schema;

communicating, to a network router client, replies encoded with extensible markup language tags according to the network management interface schema; and

in response to a selection made by a user, emitting the replies for presentation in either a rendered or unrendered format.

Claim 13 (Original): The method of claim 12, wherein the tags include chassis tags that define output for the chassis software module, device configuration tags that define output for the device configuration software module, and routing protocol tags that define output for the routing protocol software module.

Claim 14 (Original): The method of claim 12, further comprising receiving at least some of the replies encoded with extensible markup language tags from one or more of the software modules.

Claim 15 (Original): The method of claim 12, further comprising encoding at least some of the replies with extensible markup language tags based on non-encoded replies received from one or more of the software modules.

Claim 16 (Original): The method of claim 15, wherein the non-encoded replies include ASCII replies, the method further comprising encoding the ASCII replies in extensible markup language tags to form the encoded replies.

Claim 17 (Original): The method of claim 12, wherein the selection made by the user includes user input received at the client interface indicating a desire to present the replies in an unrendered form.

Claim 18 (Original): The method of claim 12, further comprising emitting the replies in a default mode unless the selection made by the user overrides the default mode.

Claim 19 (Original): The method of claim 18, further comprising including with the replies an indication that the replies are not to be rendered when the user overrides the default mode.

Claim 20 (Original): The method of claim 12, wherein the configuration requests include requests to change an existing configuration of the network router, the method further comprising interacting with one or more of the software modules to effect the requested change.

Claim 21 (Original): The method of claim 12, wherein the extensible markup language is XML, the method further comprising presenting an XML-based application programming interface (API) at the client interface.

Claim 22 (Original): The method of claim 12, wherein the network router includes a packet routing engine that specifies one or more routes for data packets, and a packet forwarding engine that forwards the data packets according to the specified routes, and the method is performed in part as a process within an operating environment executing on the packet routing engine.

Claim 23 (Original): A computer-readable medium carrying instructions to cause a programmable processor to:

receive, at a client interface of a network router, configuration requests and operational requests encoded with extensible markup language tags;

access a network management interface schema that maps the extensible markup language tags to configuration and operational information associated with software modules running on a network router, the software modules including a chassis software module that defines an inventory of components in the network router chassis, a device configuration software module that defines a physical configuration of the network router, and a routing protocol module that administers protocols supported by the network router;

parse the configuration requests and the operational requests;

access the corresponding configuration and operational information associated with the chassis software module, the device configuration software module, and the routing control software module according to the network management interface schema;

communicate, to a network router client, replies encoded with extensible markup language tags according to the network management interface schema; and

in response to a selection made by a user, emit the replies for presentation in either a rendered or unrendered format.

Claim 24 (Original): The computer-readable medium of claim 23, wherein the tags include chassis tags that define output for the chassis software module, device configuration tags that define output for the device configuration software module, and routing protocol tags that define output for the routing protocol software module.

Claim 25 (Original): The computer-readable medium of claim 23, wherein the instructions cause the processor to receive at least some of the replies encoded with extensible markup language tags from one or more of the software modules.

Claim 26 (Original): The computer-readable medium of claim 23, wherein the instructions cause the processor to encode at least some of the replies with extensible markup language tags based on non-encoded replies received from one or more of the software modules.

Claim 27 (Original): The computer-readable medium of claim 26, wherein the non-encoded replies include ASCII replies, and the instructions cause the processor to encode the ASCII replies in extensible markup language tags to form the encoded replies.

Claim 28 (Original): The computer-readable medium of claim 23, wherein the selection made by the user includes user input received at the client interface indicating a desire to present the replies in an unrendered form.

Claim 29 (Original): The computer-readable medium of claim 23, wherein the instructions cause the processor to emit the replies in a default mode unless the selection made by the user overrides the default mode.

Claim 30 (Original): The computer-readable medium of claim 29, wherein the instructions cause the processor to emit with the replies an indication that the replies are not to be rendered when the user overrides the default mode.

Claim 31 (Original): The computer-readable medium of claim 23, wherein the configuration requests include requests to change an existing configuration of the network router, and the instructions cause the processor to interact with one or more of the software modules to effect the requested change.

Claim 32 (Original): The computer-readable medium of claim 23, wherein the extensible markup language is XML, and the instructions cause the processor to present an XML-based application programming interface (API) at the client interface.

Claim 33 (Original): The computer-readable medium of claim 23, wherein the network router includes a packet routing engine that specifies one or more routes for data packets, and a packet forwarding engine that forwards the data packets according to the specified routes, and wherein the instructions cause the processor to execute a process within an operating environment executing on the packet routing engine.

Claim 34-42 (Canceled).